Electric Vehicle Charging Stations and Community Associations

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community ASSOCIATIONS INSTITUTE

Virginia Community Associations

facts & figures

» Approximately **1,740,000** Virginians live in **661,000** homes in **8,600** community associations.

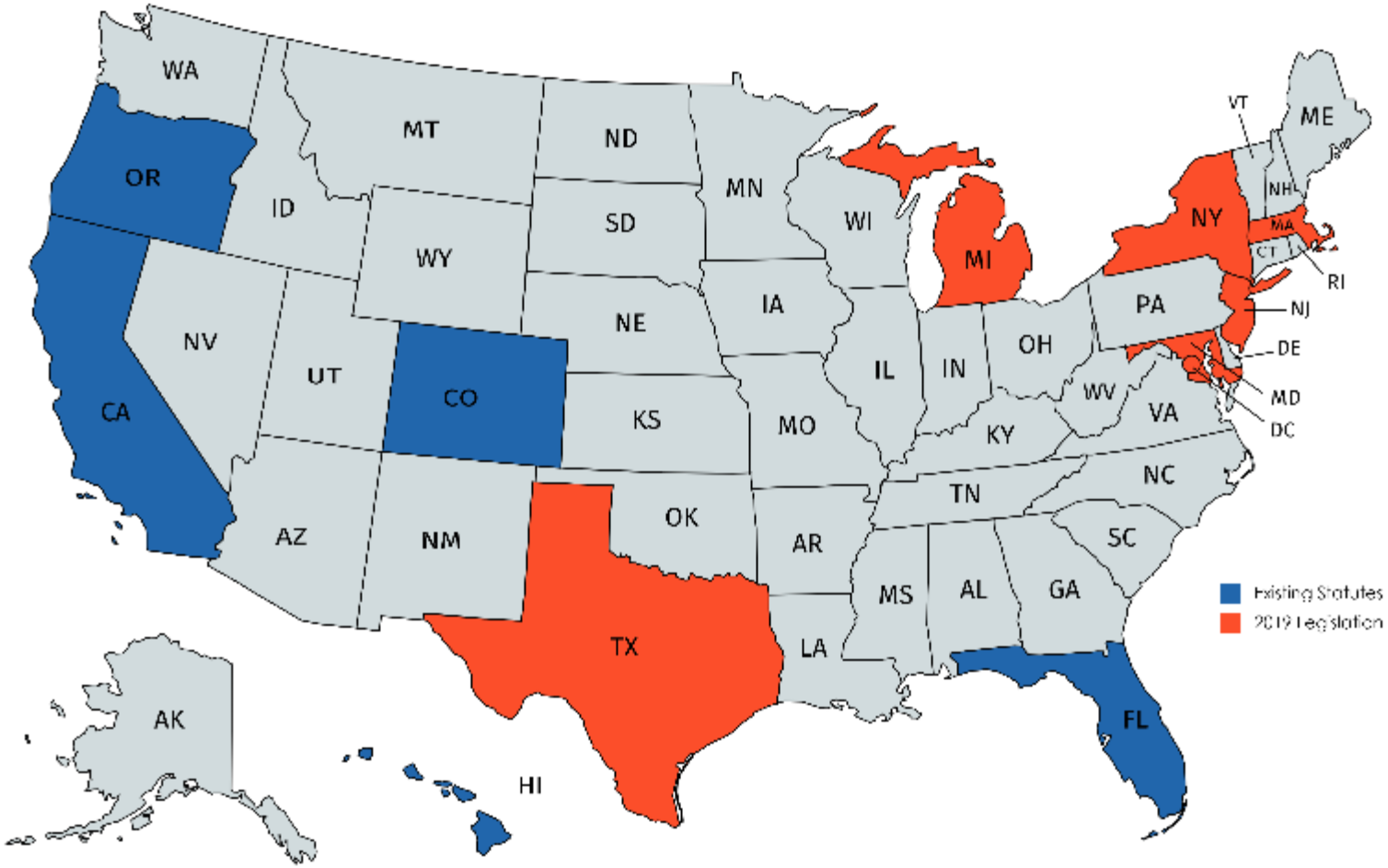
» These residents pay **$2.3 billion** a year to maintain their communities. These costs would otherwise fall to the local government.

» **59,000** Virginians are elected to their community association boards each year, providing **$48.5 million** in service.

» Homes in community associations are generally valued at least **5–6%*** more than other homes.

» By **2040** the community association housing model is expected to become the most common form of housing.

Electric Vehicle Charging Stations



BACKGROUND AND CONSIDERATIONS

Levels of Charging Stations

Levels of Charging Stations

Level 1 Charging

Level 1 charging equipment provides electricity to the vehicle through a 120-volt alternating current plug. Level 1 charging is the easiest and most basic way to charge an electric vehicle as it allows for the vehicle to be charged by plugging a cord into an ordinary household electrical outlet. Level 1 charging equipment is standard on most electric vehicles. However, Level 1 charging is often inconvenient as it generally takes a much longer time to charge a vehicle.

Levels of Charging Stations

Level 1 Charging

More specifically, Level 1 charging typically only provides 2-5 miles of driving range per hour of charging. Permitting Level 1 charging is the easiest way for a community association to accommodate an individual co-owner's request to charge an electric vehicle. In most instances, co-owners can simply plug their electric vehicles into their garages, as Level 1 charging typically only requires a 15 or 20-amp, single-pole breaker. As long as the unit is individually metered, and modifications do not need to be made to the common element electrical system, a community association will likely have minimal involvement with respect to Level 1 charging in a unit with an attached garage.

Levels of Charging Stations

Level 2 Charging

Level 2 charging equipment provides electricity to an electric vehicle through a 240 volt or 208 volt electrical service and is typically hardwired to the existing electrical systems. Level 2 charging can easily be installed in a garage or on a common element parking area, but it will typically require a co-owner to enter into a modification agreement to install. A Level 2 charging system requires the installation of charging equipment and a dedicated 20 to 80 amp circuit, even though it uses the same connector to attach to an electrical vehicle as a Level 1 charging system.

Levels of Charging Stations

Level 2 Charging

A Level 2 charging system charges much faster than a Level 1 charging system and typically provides 10-20 miles of driving range per hour of charging. In most instances, community associations can accommodate a co-owner request to install a Level 2 charging station in the co-owner's unit. However, this typically requires the co-owner to submit detailed plans to the association for approval and having an engineer or electrician review the plans to ensure that the community association's system can handle the Level 2 charging system. Many municipal codes encourage garages to be constructed with a 240 volt outlet on a dedicated circuit to accommodate Level 2 Charging.

Levels of Charging Stations

Level 3 Charging/DC Charging

Level 3 charging equipment, commonly known as a DC Charging System, charges an electric vehicle through a 480 volt direct current (DC) plug. Unlike a Level 1 or Level 2 charging system, Level 3 charging systems are typically designed for outdoor use as they are commonly found in public fueling stations. A level 3 charging station is the fastest way to charge an electric vehicle and it can provide 180-240 miles of driving range per hour of charging. A 350 kW charging system could charge a 200 mile range battery in less than 10 minutes, Adding a Level 3 charging station is typically difficult and undesirable for a community association to accommodate. First, a Level 3 charging system may be undesirable because not all electric vehicles offer a Level 3 charging port. Second, owning and maintaining a Level 3 charging system is expensive and can sometimes cost upwards of $50,000 or more.

Levels of Charging Stations

Level 3 Charging/DC Charging

Third, the existing electrical system has to be designed to handle a significantly higher electric load capacity. Accordingly, most Level 3 charging stations are located along interstate highways or in designated public charging areas. However, a Level 3 charging system could be effective if installed on a common parking lot to accommodate the charging of multiple electric vehicles in the same community association.

CAI PUBLIC POLICY

CAI Public Policy

- **CAI supports legislation that recognizes the core principle of self-governance and co-ownership of common property and the community association housing model.** As each association is unique, legislation should allow the community to determine the most efficient, fair, and effective method to provide electric vehicle charging stations. Legislation or policy must respect the financial capability of associations to provide for the stations and allow associations to equitably allocate the cost of the charging stations to those who benefit.

Parking Space Ownership

Parking Space Ownership

Where feasible and allowed by the governing documents or condominium instruments, community associations are encouraged to consider allowing an owner to place an electric vehicle charging system on a limited or reserved common element or common area. Associations should have authority to work with an owner to develop reasonable terms and conditions for placement of charging systems, including the following public policy components:

Components of Public Policy

Compliance with health, safety, and zoning ordinances

Components of Public Policy

Engage a duly licensed and registered contractor familiar with EVCS

Components of Public Policy

Prior approval (approval shall not be unreasonably withheld – 60 days)

Components of Public Policy

Architectural guidelines (reasonable)

Components of Public Policy

Expenses (owner is responsible)

- Review, permitting, installation
- Electricity based on usage and fees related to submetering, if necessary
- Installation, maintenance, repair, restoration, and removal

Components of Public Policy

Owner must provide association with certificate of insurance (as additional insured)Transfer of ownership and disclosure to subsequent owners

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